

REMARKS

Firstly, Applicant expresses his gratitude to the Examiner for the Examiner's thorough review of this application. This response to the outstanding Office action is a bona fide attempt to advance this application toward a condition of allowance.

In the Office action, the Examiner has requested an affirmation of the election of claims 3-10 without traverse for examination on the merits of this application. This election of claims 3-10 without traverse is hereby confirmed. Claims 1 and 2 are therefore cancelled from this application.

The Examiner has also objected to the specification and requested amendments to the first paragraph of the specification, to include the patent numbers corresponding to the applications mentioned therein. This first paragraph has been amended according to the Examiner's recommendation.

The Examiner has also objected to the improper use of trademarks on pages 25 and 26 of the specification. The first trademark AIRLOCKTM has been removed, for not being essential to describe the rotary feeder in question, and the trademark BUNKER CTM has been replaced by "heavier fuel" which is an equivalent to the trademark when used in the present context.

All of claims 3-10 have been rejected under 35 U.S.C 103(a) for being unpatentable over Becker et al. (US 4,064,226); in view of Berry (US 1,565,249 and further in view of Beebe (US 290,627) concerning claims 8 and 9 in particular. The Examiner's comments in that regard have been considered and are appreciated.

Claims 3 and 6-8 have been cancelled to avoid extensive amendments, and the subject matter thereof have been introduced in new claims 11 to 16. New claim 11 has been written as an independent claim to describe more clearly the general arrangement of the apparatus being claimed. More particularly, this claim has been written to describe more clearly, an apparatus having means for circulating hydrocarbon fuel along a horizontal flow path extending above a hydrogen gas generating region therein and across a vertical flow of hydrogen gas.

It is respectfully submitted that neither one of the Becker et al., Berry or Beebe references, alone or in combination, describes, teaches or suggests an apparatus having means for circulating hydrocarbon fuel along a horizontal flow path extending above a hydrogen gas generating region therein and across a vertical flow of hydrogen gas.

Inasmuch as the Examiner might reconsider the Becker et al., reference in a rejection of new claim 11, the following comments are submitted. First of all, the Becker et al., reference describes an apparatus wherein the level of the aqueous solution is controlled by a level indicator (23) and pumps (24) and (27). It is respectfully submitted that one cannot consider the dosing pump (27) and circulating pump (21) as a means to circulate hydrocarbon fuel inside the receptacle of Becker et al., above a hydrogen gas generating region, because pump (21) has its suction pipe submerged under the level of the aqueous solution and would always draw this aqueous solution.

It is respectfully submitted that in the event where one would want to use pumps (27) and (21) to circulate hydrocarbon fuel over the hydrogen gas generating region inside the apparatus of Becker et al., that person would have to modify this apparatus to the point where the modification would change the principle of operation of the apparatus, and render it unsatisfactory for its intended purpose.

Secondly, there is no structure disclosed in the Becker et al. reference for introducing a hydrocarbon fuel into the reaction vessel (10) of Becker et al., and circulating said hydrocarbon fuel inside the reaction vessel of Becker et al. such as is recited in the last means plus function clause of Applicant's new claim 11. Nor is it permissible to add such a structure to the Becker et al. apparatus, and particularly to the reaction vessel (10) of Becker et al., since to do so would be based on hindsight in light of Applicant's own disclosure.

Furthermore, neither the Berry or Beebe references discloses any structure for introducing a hydrocarbon fuel into their respective reaction vessels and circulating said hydrocarbon fuel inside their respective reaction vessels such as recited in the last means plus function clause of Applicant's new claim 11. They are both deficient in this respect and therefore would not be suggestive in modifying the Becker et al. reaction vessel (10).


Therefore, it is respectfully submitted that Applicant's new claim 11 is neither anticipated nor unpatentable over the Becker et al., Berry or Beebe reference, alone or in combination, for the reasons explained above. It is also Applicant's position that new claims 12-19 and amended original claims 4, 5 and 9, which depend directly or indirectly on new claim 11, are also not anticipated by the Becker et al., Berry or Beebe reference, and are unobvious over the Becker et al., Berry and Beebe references, alone or in combination, for substantially the same reasons as set forth in the remarks for claim 11 hereinbefore.

Support for the new claims 11-19 can be found in Applicant's specification, and more particularly at pages 24-26 and in FIG. 16 of the drawings.

It is believed that the application is now in condition of allowance, and an indication to that effect is respectfully requested.

Respectfully submitted,

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Patent Agent for Applicant
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A handwritten signature in black ink that reads "Palmer C. DeMeo". The signature is written in a cursive, flowing style with a long horizontal stroke at the end.

Copy to: Mr. Erling R. Andersen